

# SPOT LOG

DRILL HOLE: MLZ #11 GRAY  
PROP. OWNER: D. D. Gray  
DRILL CONTRACTOR: Joy Spradling Drilling, Inc.  
DRILL OPERATOR: J. Smith  
DATE STARTED: 11/17/78  
CASING LEFT IN HOLE: 530' of 7" O.D. Casing

LOC: NE SW SE, Sec 34, T30S, R21E  
FROM INTERSECTION OF GRAY SOUTH LINE +  
N-S PRIVATE DRIVE, 85' W + 75' N  
LOGGED BY:  
ELEV: 847' surveyed  
DATE COMPLETED: 11/22/78  
TOTAL DEPTH: 690'

- 0 - 20 - No samples
- 20 - 39 - Limestone, brown
- 39 - 44 - Limestone, brown
- 44 - 49 - Shale, black
- 49 - 51 - Shale, black 80%; siltstone, light gray, soft 20%
- 51 - 52 - Shale, black 50%; siltstone, light gray, soft 50%
- 52 - 84 - Siltstone, fine grained, greenish-gray; traces pyrite
- 84 - 99 - Shale, silty
- 99 - 135 - Shale, medium to dark gray
- 135 - 137 - Shale, black; shale, gray
- 137 - 139 - Shale, black
- 139 - 143 - Shale, gray; coal ?
- 143 - 148 - Shale, fine, silty, medium gray
- 148 - 149 - Shale, gray; localized limestone
- 149 - 151 - Limestone, brown
- 151 - 152 - Shale, black; limestone, brown
- 152 - 153 - Limestone, medium to dark gray; shale, medium gray
- 153 - 156 - Shale, black, hard
- 156 - 157 - Shale, black; shale, medium to light gray
- 157 - 159 - Shale, medium gray
- 159 - 160 - Shale, black; shale, gray; coal
- 160 - 161 - Shale, light gray, soft
- 161 - 162 - Shale, light gray, soft; shale, black
- 162 - 164 - Shale, light gray, soft; shale, traces of black; limestone
- 164 - 168 - Siltstone, medium gray
- 168 - 173 - Siltstone, brownish gray; no oil
- 173 - 176 - Same as above with traces of smell
- 176 - 177 - Siltstone; gas
- 177 - 179 - Siltstone; little oil
- 179 - 182 - Sandstone 50%; shale, gray 50%
- 182 - 184 - Sandstone 50%; siltstone 50%
- 184 - 186 - Sandstone 50%; siltstone 50%; abundant oil
- 186 - 193 - Sandstone, brown, clean; some carbonaceous particles; abundant oil
- 193 - 199 - Sandstone, brown, clean; abundant oil
- 199 - 234 - Sandstone, brown; traces carbon particles or coal; abundant oil
- 234 - 244 - Sandstone, brownish-black
- 244 - 245 - Sandstone, black and brown
- 245 - 246 - Sandstone, black 80%; siltstone, brown, fine 20%
- 246 - 249 - Sandstone, black and brown; siltstone, brown; shale, gray
- 249 - 250 - Sandstone, brown; sandstone, black
- 250 - 251 - Sandstone, brown; sandstone, black; coal
- 251 - 252 - Sandstone, black and brown; coal, silty
- 252 - 253 - Sandstone, brown 60%; shale, gray 40%
- 253 - 258 - Shale, gray; siltstone, brown